Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
INQUIRY REGARDING CARRIER CURRENT SYSTEMS, INCLUDING BROADBAND OVER POWER LINE SYSTEMS	)	**ET Docket No. 03-104**
	)	
AMENDMENT OF PART 15 REGARDING NEW REQUIREMENTS AND MEASUREMENT GUIDELINES FOR ACCESS BROADBAND OVER POWER LINE SYSTEMS	)	**ET Docket No. 04-37**

To: The Commission

Comments from:

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Re: Various Follow Up Comments

Recent PLCA Ex Parte Presentation and Comments Filing

In a recent filing by the PLCA, the PLCA wrote recommendations for interference resolution:

> *"2. Complaints must include sufficient [information] necessary to successfully identify and resolve the incident:*
>
> *a. Location (e.g. street address, nearest major road intersection, latitude/longitude, utility pole number or other description) where the incident was experienced.*
>
> *b. Time and date of the incident.*
>
> *c. Approximate duration of the incident (e.g. 20 seconds, 5 minutes, 4 hours, continuous) and repetitiveness (e.g. one-time, daily, once a week, constant)*
>
> *d. Spectrum frequency and frequency band(s) affected by the incident (wherever known).*
>
> *e. The approximate number of hours per year the complainant operates on the affected frequency(ies) within 50 meters of the Location.*

3. The BPL operator must investigate the complaint and respond in writing not later than 30 days from receipt of the complaint, and provide supporting details."

The PLCA appears to be asking for information that is not relevant to investigating interference complaints, in violation of the privacy of licensees, and goes beyond any privileges intended for Part 15 device operators.

Item 2(e) is not relevant to PLCA's goal of "*[information] necessary to successfully identify and resolve the incident".* Regardless of the interference victim's usage of the frequencies, interference is interference under Part 15. Presumably, PLCA wants BPL operators to be empowered to decide what complaints are valid based on their own criteria. It is is easy to see that such information could be used to deny complaints or delay action if it is deemed the interference victim does not use the frequencies and/or location as often as the BPL carrier believes is necessary to "validate" a complaint. The PLCA does not state implicitly that this is their intent, however it is difficult if not impossible to find a valid technical reason for seeking such information, and items (a), (b), (c), and (d) establish the technical basis for a complaint.

If the PLCA believes personal licensee operating habit information is necessary and believes BPL carriers should be allowed to make determinations based on this information, this immediately invalidates the claims of several groups:

Citizen Band Operators – Arguably, the vast majority of CB operators are mobile stations. Considering the travel habits of typical professional drivers utilizing CB, many pass a given area infrequently. BPL carriers could deny individual complaints as interference victims operator for only several minutes a year on a given frequency within 50 meters of the interference area.

New Licensed Ham Radio Operators – By virtue of being new installations, the interference victim would little if any history of using the affected frequencies or location, and have no recourse until "sufficient" usage time was accumulated. Ironically, the interference victim would not be able to use the affect frequencies due to the interference and never log any amount of time, placing the licensee in a "Catch 22" situation.

Relocated Ham Radio Operators – Similar to the situation above, a ham radio operator moving into a new residence would have no time logged at that location or interference affected frequency.

Mobile Stations – Such licensees are just that, mobile, and do not stay in one location while operating. A mobile station could regularly experience interference on a route, but the BPL carrier could dispute the interference claim based on the mobile station's operating habits.

Shortwave Listeners – This group of people are passive users of HF spectrum and presumably do not fit the definition of "operating" on a frequency.

Part 15 operation was never intended as a circumvention device for acquiring licensed spectrum. The spirit of Part 15 is to allow consumer devices that emit

radiation either intentionally or otherwise to exist and not be burdened with outrageous requirements that might otherwise make the device too expensive or troublesome to operate. Additionally, it seeks to ensure electromagnetic compatibility between various electronic devices, not give unlicensed operations primary or secondary operating privileges to a frequency.

The PLCA request seeks to give Part 15 operators rights expected by primary licensees of spectrum. The provision asking for personal operating habit information goes beyond any rights existing Commission licensees have. It should be the interference victim that determines what interference is harmful, and not the interferer which has a biased viewpoint of the situation and little to no interest in the continuing operation of the licensee.

Mobile Interference Complaints

Judging by recent comments at a public BPL advocacy conference, BPL proponents continue to challenge the validity of mobile interference victims' complaints. Mobile operations are troublesome to BPL due to the premise under which BPL operates, which is if no one is around to hear the emission, it can emit radiation within limits.

Recently I drove the Bethlehem, PA area to survey the current level of interference from an operational BPL system. Appendix A shows some simple observations that were made using a run-of-the-mill Amateur transceiver and a mobile whip antenna resonant at 14 Mhz. The measurements are not intended to be comprehensive, but rather some quick observations made at a few locations where it was convenient to jot down notes one afternoon while driving.

Most everywhere throughout the BPL coverage area there are several Amateur bands littered with modulated carriers varying in strength by frequency and location. A mobile station traveling from the north end of Jacksonville Road to the southernmost point can expect interference to hit nearly every HF Amateur band, with some bands like 12 and 17 meters receiving most of the interference from a geographical standpoint.

BPL proponents and the FCC appear to want to deploy BPL throughout the country, lighting up every power line. Nearly every road in my area has a power line running next to it. If BPL were to have ubiquitous coverage, I cannot fathom the impact to HF radio bands. If BPL were to cover my entire morning commute route, I would need to file perhaps several complaints with two power companies, take a considerable amount of time to collect data, and plead my case with the utilities in order to have a clear band to use for the 45 minute ride into work. After working to clear out bands that I am licensed to use, I would continually be at the mercy of BPL frequency plan changes that would be inevitable in such a BPL system as it grows and provides more bandwidth for subscribers. Meanwhile, BPL advocacy groups like the PLCA want to make timelines of 30 days be an acceptable response period to complaints, making the process for interference victims slow and tedious.

If what I see in the Bethlehem test area is an indication of what the HF radio bands will sound like a few years from now, there will be little to no wireless communications possible. While mobile operation becomes too inconsistent, unreliable, unpredictable, and troublesome to be of any use, undoubtedly fixed location stations will be continually bothered with emissions from growing BPL systems. Newly licensed operators will have to be educated on BPL interference

characteristics and be forced to negotiate with power companies to get HF spectrum cleaned up in their areas so they can operate.

The scenarios above are beyond comprehension. Part 15 devices were meant to operate with little to no impact to licensed operations and not be a continual thorn in the side of licensees. BPL proponents want to discount and dismiss mobile interference, arguing that mobile operators can drive away from the interference. This is in direct conflict with their desire to have coverage everywhere. At some point BPL interference will be inescapable, and the BPL industry will have no way to sweep complaints under the rug. The flawed argument that mobile operation interference complaints have little to no validity can only be made only due to the fact that BPL coverage is extremely sparse at this point. The FCC is making judgments on BPL based on unrealistically small test areas and not extrapolating what a large scale ubiquitous coverage BPL system will look like, and its implications.

Conclusion

Throughout the course of the BPL NOI and NPRM, significant information has been presented clearly showing that the potential problems with BPL are real and it is simply a danger to wireless communications that should not be allowed to continue. Nevertheless, the Commission has continued its campaign to promote BPL and meet with BPL industry officials and go out of its way to attend promotional events and demonstrations, while ignoring or delaying action on interference complaints. I can't understand why the Commission is dismissing field measurements and observations, studies, and scientific facts, but it appears that the legacy of this administration will be the death of HF communications in the United States.

Respectfully submitted,

Anthony Good

Appendix A – Various Observed Signals at Bethlehem, PA BPL System, week of September 29th.

Near Intersection of Stoke Park Road & Jacksonville Road

Band	Typical Signal Level
40 meters	S4
30 meters	S2
12 meters	S3
10 meters	S2

Near Valley Park Apartments, Catasuaqua Road

Band	Typical Signal Level
40 meters	S4
20 meters	S4
15 meters	S2

Catasauqua Road Near 378

Band	Typical Signal Level
17 meters	S6

8th Avenue

Band	Typical Signal Level
20 meters	S6 - S9